Abstract of the Disclosure

The current invention relates to the design, synthesis, and biochemical evaluation of chromogenic substrate compounds for sialidases of bacterial, viral, protozoa, and vertebrate (including human) origin. In particular, this invention provides a novel class of effective compounds as chromogenic substrates of these sialidases which yield chromogenic products after reactions catalyzed by sialidase take place. Also provided are methods of making these substrate compounds, methods of diagnosis and prognosis of sialidase related diseases using these substrate compounds.